



ISSN (E): 2277- 7695

ISSN (P): 2349-8242

NAAS Rating: 5.03

TPI 2019; 8(7): 325-330

© 2019 TPI

www.thepharmajournal.com

Received: xx-05-2019

Accepted: xx-06-2019

Agrawal Lavi

Department of Prasuti Tantra
Faculty of Ayurveda IMS, BHU,
Varanasi, Uttar Pradesh, India

Suman Sunita

Department of Prasuti Tantra,
Faculty of Ayurveda, Institute
of Medical Sciences, Banaras
Hindu University, Varanasi,
Uttar Pradesh, India

A comparative study of Palashadi taila yoni pichu and Kapikacchu taila yonipichu in Yonishaitilya

Agrawal Lavi and Suman Sunita

Abstract

Background- Yoni-Shaithilya is made up of two words Yoni and Shaithilya. The word Yoni in Ayurvedic classics is used to denote genital tract or perineum as a whole, uterus and vaginal canal. These different meanings are to be taken according to different specific reference. The word Shaithilya means looseness or laxity; the quality or state of being lax. Yoni-Shaithilya is described as clinical feature of the disease Yoni-Vyapad which is very well elaborated in the Ayurvedic literatures. In modern view, the clinical features and line of treatment of Yoni-Shaithilya resembles with Perineal Laxity which is caused due to pelvic floor dysfunction especially by hypotonic condition of pelvic muscles like pubococcygeus. It is one of the remarkable problems amongst the parous women of reproductive age group globally. The current treatment modalities include mainly vaginoplasty and vaginal rejuvenation which have their own potential disadvantages like decreased clitoral and genital sensation and complications, such as vaginal infection, tissue adhesions, and scarring. So the biomedical researchers are inclined to other sources of treatment modalities including local application of oils in the form of tampon. Pichu Kalpana is a form of tamponing which is very well versed in Ayurvedic lexicons under the headings of Sthanik-Chikitsa (local applications) of the disease Yoni-Vyapad. The present research work was studied in total 40 patients of different ages who were randomly divided into two groups. The trial drugs were selected Palashaditaila and Kapikachhutaila in the form of Yoni pichu and they have shown significant response on subjective parameter.

Keywords: Yoni-shaithilya, perineal laxity, pelvic floor dysfunction, pichu kalpana, tamponing, palashadi taila, kapikachhu taila, yoni pichu

Introduction

Ancient *Acharyas* have mentioned 20 types of *Yoni Vyapad* which includes almost all types of gynaecological disorders, developing due to vitiation of *vata*, *pitta* and *kapha*. But *Yoni Shaithilya* is not described as a disease in *Ayurvedic* literature. It is mentioned as a symptom of *Yonivyapad* (*Vatala*, *Mahayoni*, *Prasamsini*, *Andini/Phalini yonivyapad*). According to *Acharya Charaka* ^[1], aggravated *Vata* due to coitus in an uneven and troublesome bed causes firmness and dilatation of the opening of vagina and uterus both. Displacement of vagina and lax perineum are found in *Vatala yonivyapad* ^[2].

Prasamsini ^[3] *yonivyapad* is characterised by displacement of yoni from its normal position and any irritation causes excessive vaginal discharges due to vitiated *pitta dosha*.

In *Phalini/Andini* ^[4] women of narrow vaginal canal did constant coitus by a man of big size penis cause excessive laxity of anterior vaginal and posterior vaginal wall which may protuberate outside the introitus in a shape of fruit or egg. According to all *Acharyas* ^[5-8] in *Mahayoni*, the vagina is very wide and all the three *dosha* are involved in it.

In modern view, the clinical features and line of treatment of *Yoni Shaithilya* resembles with Perineal Laxity. Perineal laxity ^[9] is a common condition in which there is weakness of the supporting structure of the female pelvis, thereby allowing descent of one or more of the pelvic organs through the potential space of vagina. These organs include the following- urethra, urinary bladder, rectum, small intestine, uterus and the vagina itself. Perineal laxity is a common complaint of elderly women in gynecological practice. This happens mostly in multiparous and postmenopausal women. Nulliparous prolapse is seen in 2% and vault prolapse in 0.5% cases following hysterectomy ^[2].

Untreated *yonishaitilya* produces many complications like difficulty in labour and micturition disturbances. It may be converted into 2nd or 3rd degree prolapse and where is no scope for conservative treatment. So its treatment is necessary as early as possible. That's why I have selected this disease for present study.

Correspondence

Agrawal Lavi

Department of Prasuti Tantra
Faculty of Ayurveda IMS, BHU,
Varanasi, Uttar Pradesh, India

Yoni Shaithilya do not occur without vitiation of Vata, thus first of all Vata should be normalized, only then treatment for other doshas should be done. A combination of both Palashand Udumbara have the Vatashamak as well as Tridosha shamak properties. Kapikachhu also has the vatashamak as well as tridosha shamak properties.

Material and Methods

Selection of Drugs: Due to authentic references, easy availability and economic, the above mentioned drugs for yoni shaithilya have been selected for present work.

The *Palashadi Taila* ^[10] (*Palash, Udumber, TilaTaila, Honey*) *Yoni Pichuis* described by *Sha.S.U.11/110* in the reference of *Yoni Gdnikaran*.

The *Kapikachhu* ^[11] is described in *Bh.Pr.Chi.70/47, 48* and by *Y.R. yoni rogachikitsa 7/70* in the reference of *YoniSankochak*.

Selection of cases: The women of age group 25 to 45 years visiting to Prasuti Tantra OPD of S.S. Hospital with the chief complains of feeling of heaviness in external genitalia or something descending per vagina, vaginal discharges and with associated complaints backache, lower abdomen pain, dyspareunia, micturition disturbances, constipation etc. were

selected on the basis of detailed history.

Inclusion criteria: Married women of age group 25-45 years with different parity and gravidity complaining of something coming out per vagina or heaviness in external genitalia, vaginal discharge with any associated symptoms were selected for present study.

Exclusion criteria: patients who are unmarried, menarche and menopause and pregnant, suffering from any disease like Tuberculosis, bronchial asthma, severe anemia, jaundice, HTN, skin disease, metabolic disorders like diabetes mellitus and thyroid dysfunction or any systemic disease, Psychologically unstable, any history of pelvic and vaginal surgery, any significant history of allergy to common drugs or any significant past history, family history or personal history, any benign or malignant growth in genital tract, 2nd and 3rd degree uterine prolapse & pelvic inflammatory disease, having any hormonal disorders like polycystic ovarian syndromes and congenital abnormalities of genital tract etc, suffering from or under treatment of STDs, HIV, HbsAg etc.

Showing the parameters which were graded in the study

Table 1: Perfect assessment scheme ^[12]- For the diagnosis of perineal muscle laxity.

P	Power*	Muscle strength: assessing the presence and intensity of voluntary muscle contraction. Grade 0: No perineal function objectively, even palpation. Grade 1: Function perineal objective absent, contraction recognizable only by palpation. Grade 2: Function perineal objectively weak, contraction recognizable by palpation. Grade 3: Function perineal this objective opposition and resistance not kept longer than five seconds to palpation. Grade 4: Function perineal this objective opposition and resistance held more than five second on touch.
E	Endurance	Maintenance of contraction in seconds, with voluntary contraction maintained and sustained as a result of slow muscle fibers. join the time reached (maximum ten seconds)
R	Repetitions	Repeat the contractions kept: they correspond to the number of contractions with satisfactory supports (five seconds). which can be performed after a rest period of four seconds between them. The number achieved without compromising the intensity is recorded (maximum of ten repetitions).
F	Fast	Number of fast-twitch: corresponds to measure contractility of fast muscle fibers determined after two minutes of rest. The number of rapid contractions in a second without compromising intensity (maximum ten times) was noted down.
E	Every	Monitoring progress through the timing of contractions
C	Contraction	
T	Timed	

Table 2: Rectocele

S. No.	Grade	Score	Description
1	Normal	1	No rectocele
2	Mild (+)	2	Rectum to vaginal opening with strain
3	Moderate (++)	3	Rectum outside vaginal opening with strain
4	Severe (+++)	4	Rectum outside vaginal opening at all times

Table 3: Cystocele

S. No.	Grade	Score	Description
1	Normal	1	No cystocele
2	Mild (+)	2	Bladder to vaginal opening (introitus) with strain
3	Moderate (++)	3	Bladder outside vaginal opening with strain
4	Severe (+++)	4	Bladder outside vaginal opening at all times

Table 4: Perineal laxity: Perineal laxity usually accompanying with cystocele or rectocele or both.

S. No.	Grade	Score	Description
1.	Normal	0	No Perineal laxity
2.	Mild (+)	1	Perineal laxity without cystocele or rectocele
3.	Moderate (++)	2	Perineal laxity with cystocele or rectocele
4.	Severe (+++)	3	Perineal laxity with both cystocele and rectocele

Table 5: Cervical congestion

S. No.	Grade	Score	Description
1.	Normal	0	When colour of cervix was light pink.
2.	Mild (+)	1	When colour of cervix was Pink
3.	Moderate (++)	2	When colour of cervix was Dark Pink.
4.	Severe (+++)	3	When colour of cervix was Red or Bluish

Table 6: Vaginal Discharge

S. No.	Grade	Score	Description
1.	Normal	0	Without spotting undergarment and certain moistening from vagina and vulva.
2.	Mild (+)	1	More discharges and causes spotting 1 inch to 2 inches in diameter on undergarments once or thrice in a day.
3.	Moderate (++)	2	Undergarments are undeniably soiled and require changing and washing daily.
4.	Severe (+++)	3	Excessive discharge per vagina for most of the times, which causes soakage of undergarments and requiring extra absorbent pad sometimes.

Clinical examination and investigation

Complete general, systemic and local yexamination per abdomen per speculum and per vaginum examinations were done and noted. After examination investigations like haematological investigations Hbgm%, TC, DC, ESR, Fasting blood sugar, HIV, HBSAG, Urine analysis for routine and microscopic. Radiological examination Ultrasonography (pelvis) were done. Specific investigations urine for culture

and sensitivity test before and after treatment, vaginal swab for culture and sensitivity test before and after treatment were done.

Grouping of cases: Total 40 patients were selected after detailed history, complete examinations, investigations and were divided into two groups according to different treatment.

Table 7: Showing Grouping of total Cases

Groups	Treatment given	Procedure of <i>Pichu</i> Therapy	Days	Follow ups (each follow up was done at every 15 days)	No. of cases
A	<i>Palashaditaila yoni pichu</i>	<i>Yoni pichu</i> soaked in 5-10 ml <i>palashaditaila</i> to be kept in vagina in night	45 days	Total 4 follow-ups were done. 3 follow-ups with medication and one without medication	20
B	<i>Kapikacchutailapichu</i>	<i>Yoni pichu</i> soaked in 5-10 ml <i>kapikachhutaila</i> to be kept in vagina in night	45 days	Total 4 follow-ups were done. 3 follow-ups with medication and one without medication	20

Method of giving *Pichu*

Before giving the *Pichu*, thorough general examination, Systemic examination and P/S, P/V examinations were done. High vaginal swab sent for culture and sensitivity test. Then 1×1 inch of tampon (sterile cotton covered with sterile gauze piece) was impregnated with 5-8 ml of autoclaved *Palashadi* or *Kapikacchutaila* (according to grouping of cases) and applied intravaginally. Any complaint told by the woman was noted for 3 hours and asked to note the unwanted reaction of *Pichu* and advised to apply the vaginal *tailapichu* at bed time

once after emptying the bladder and remove in the early morning or desire of micturition.

Follow-up

Total 4 follow-ups were done and each followup was done at each every 15 days. Fourth follow up was made after withdrawal of the treatment to see the recurrence of any symptom.

Observation and result

Table 8: Showing the effect in terms of power, mean score between initial and different followups in both the groups.

Groups	Power					Within the Group Paired t test (BT-AT)
	Before treatment	Follow UPS			After treatment	
	Initial	FI	FII	FIII	FIV	
A Mean ± SD	2.25±0.638	2.25±0.638	2.95±0.604	3.85±0.670	3.85±0.670	-1.60±.680 t = -10.5 p = 0.00 HS
B Mean ± SD	2.45±0.604	2.45±0.604	2.65±0.489	3.35±0.670	3.35±0.670	0.800±0.695 T = -5.14 P = 0.000 HS
Between the group comparison unpaired t test	t=-1.017 p=.316 NS	t=-1.017 p=.316 NS	t=-1.725 p=.093 NS	t=2.357 p=.024 S	t=2.357 p=.024 S	

Table 9: Showing the effect in terms of the mean endurance score between initial and different follow-ups in both the groups.

Groups	Endurance						Within the Group Paired t test (BT-AT)
	Before treatment	Follow Ups			After treatment		
	initial	FU-I	FU-II	FU-III	FU-IV		
A Mean±SD	2.57±0.759	3.10±0.852	3.65±0.745	4.00±0.666	4.00±0.666	-1.00±0.72 t =-6.164 p=0.000 HS	
B Mean±SD	3.10±0.788	3.10±0.788	3.15±0.812	3.57±0.925	3.57±0.925	0.250±0.444 t =-2.517 p=.021 S	
Between the group comparison unpaired t test	t=-.613 p=.543 NS	t=-.000 p=1.00 NS	t=-2.028 p=0.05 S	t=-1.66 p=.0104 NS	t=-1.66 p=.0104 NS		

Table 10: Showing the effect in terms of mean repetition score between initial and different follow ups in both the groups.

Groups	Repetition						Within the Group Paired t test (BT-AT)
	Before treatment	Follow UPS			After treatment		
	Initial	FU-I	FU-II	FU-III	FU-IV		
A	3.15±0.587	3.20±0.615	3.40±0.598	3.89±0.657	3.89±0.657	-0.750±0.99 t =-7.550 p =0.000 HS	
B	3.10±0.718	3.10±0.718	3.10±0.718	3.61±0.920	3.61±0.920	-0.200±0.410 t =-2179 p=0.042 S	
Between the group comparison unpaired t test	t=.241 p=.811 NS	t=0.473 p=0.639 NS	t=-1.435 p=0.159 NS	t=-1.079 p=.028 S	t=-1.079 p=.0281 S		

Table 11: Showing the effect in terms of mean fast score between initial and different follow up in both the groups.

Groups	Fast						Within the Group Paired t test (BT-AT)
	Before treatment	Follow UPS			After treatment		
	Initial	FU-I	FU-II	FU-III	FU-IV		
A Mean±SD	3.30±0.732	3.30±0.732	3.80±0.767	4.36±0.597	4.36±0.597	0.947±0.705 t =-5.857 p=0.000 HS	
B Mean±SD	2.95±0.759	2.95±0.759	3.10±0.718	3.80±0.980	3.80±0.980	-0.300± 0.470 t =-2.854 p =.010 S	
Between the group comparison unpaired t test	t=-1.484 p=0.146 NS	t=-1.484 p=0.146 NS	t=-2.978 p=.005 HS	t=-2.148 p=0.03 S	t=-2.148 p=0.03S		

Table 12: Showing change in cystocele during subsequent follow- ups in both the groups

Groups	Grade	Before treatment		Follow-ups						After treatment		Within the group comparison Friedman test
		Initial		FU-I		FU-II		FU-III		FU-IV		
		No.	%	No.	%	No.	%	No.	%	No.	%	
Group-A	0	6	30	6	30	6	30	12	60	12	60	$\chi^2=42.84$ p=0.000 HS
	1 (+)	4	20	5	25	8	40	6	30	6	30	
	2 (++)	8	40	7	35	5	25	1	5	1	1	
	3 (+++)	2	10	2	10	1	5	1	5	1	1	
	Mean±SD	1.30±1.03		1.25±1.01		1.05±0.887		0.55±0.82		0.55±0.82		
Group-B	0	5	25	5	25	5	20	9	45	9	45	$\chi^2=39.657$ p=0.000 HS
	1 (+)	2	10	2	10	7	35	7	35	7	35	
	2 (++)	9	45	9	45	4	25	2	10	2	10	
	3 (+++)	4	20	4	20	4	20	2	10	2	10	
	Mean±SD	1.60±1.09		1.60±1.09		1.35±1.08		0.85±0.98		0.85±0.98		

Table 13: Showing changes in rectocele during subsequent follow- ups in both the groups.

Groups	Grade	Before treatment		Follow-ups						After treatment		Within the group comparison Friedman test
		Initial		F-I		F-II		F-III		F-IV		
		No.	%	No.	%	No.	%	No.	%	No.	%	
Group-A	0	8	40	8	40	8	40	11	55	11	55	$\chi^2=32.00$ p=0.000 HS
	1 (+)	3	15	3	15	8	40	5	25	5	25	
	2 (++)	7	35	7	35	3	15	3	15	3	15	
	3 (+++)	2	10	2	10	1	5	1	5	1	5	
	Mean±SD	1.25±1.16		1.15±1.08		.85±0.87		0.70±0.92		0.70±0.92		
Group-B	0	7	35	7	35	7	35	9	45	9	45	$\chi^2=10.571$ p=0.03 S
	1 (+)	3	15	4	20	5	25	5	25	5	25	

	2 (++)	7	35	6	30	6	30	4	20	4	20	
	3 (+++)	3	15	3	15	2	10	2	10	2	10	
	Mean±SD	1.30±1.12		1.25±1.11		1.15±1.03		0.95±1.05		0.95±1.05		

Table 14: Showing changes in perineal laxity during subsequent follow- ups in both the groups.

Groups	Grade	Before treatment		Follow-ups						After treatment		Within the group comparison Friedman test
		Initial		F-I		F-II		F-III		F-IV		
		No.	%	No.	%	No.	%	No.	%	No.	%	
Group-A	0	0	0	0	0	1	5	4	20	4	20	$\chi^2=41.75$ p=0.000(HS)
	1 (+)	2	10	4	20	9	45	9	45	9	45	
	2 (++)	10	50	10	50	6	30	3	15	3	15	
	3 (+++)	8	40	6	30	4	20	4	20	4	20	
	Mean±SD	2.30±0.65		2.15±0.74		1.65±0.87		1.35±1.03		1.35±1.03		
Group-B	0	0	0	0	0	0	0	3	15	3	15	$\chi^2=36.82$ p=0.000(HS)
	1 (+)	4	20	4	20	4	20	6	30	6	30	
	2 (++)	8	40	8	40	9	45	6	30	6	30	
	3 (+++)	8	40	8	40	7	35	5	25	5	25	
	Mean±SD	2.20±0.76		2.20±0.76		2.10±0.78		1.65±1.03		1.65±1.03		

Table 15: Showing changes in uterine prolapse during subsequent follow- ups in both the groups.

Groups	Grade	Before treatment		Follow-ups						After treatment		Within the group comparison Cochrans test
		Initial		F-I		F-II		F-III		F-IV		
		No.	%	No.	%	No.	%	No.	%	No.	%	
Group-A	0 Absent	12	60	12	60	14	70	15	75	15	75	$\chi^2=13.33$ p=0.010 S
	1 Present	8	40	8	40	6	30	5	25	5	25	
Group-B	0 Absent	11	55	11	55	12	60	14	70	14	70	$\chi^2=12.00$ p=0.017 S
	1 present	9	45	9	45	8	40	6	30	6	30	

Table 16: Showing changes in amount of vaginal discharge during subsequent follow-ups in both the groups

Groups	Grade	Before treatment		Follow-ups						After treatment		Within the group comparison Friedman test
		Initial		F-I		F-II		F-III		F-IV		
		No.	%	No.	%	No.	%	No.	%	No.	%	
Group-A	0	4	20	6	30	8	40	15	75	15	75	$\chi^2=52.033$ p=0.000 HS
	1 (+)	7	35	7	35	10	50	5	25	5	25	
	2 (++)	8	40	6	30	2	10	0	0	0	0	
	3 (+++)	1	5	1	5	0	0	0	0	0	0	
	Mean±SD	1.30±0.864		1.10±0.91		0.70±0.65		0.25±0.44		0.25±0.44		
Group-B	0	5	25	5	25	8	40	11	55	11	55	$\chi^2=38.18$ p=0.00 HS
	1 (+)	7	35	7	35	8	40	5	25	5	25	
	2 (++)	7	35	7	35	4	20	4	20	4	20	
	3 (+++)	1	5	1	5	0	0	0	0	0	0	
	Mean±SD	1.20±0.89		1.20±0.89		0.80±0.76		0.45±0.68		0.45±0.68		

Table 17: Showing changes in cervical congestion initial subsequent follow ups in both the groups

Groups	Grade	Before treatment		Follow-ups						After treatment		Within the group comparison Friedman test
		Initial		F-I		F-II		F-III		F-IV		
		No.	%	No.	%	No.	%	No.	%	No.	%	
Group-A	0	6	30	6	30	7	35	16	80	16	80	$\chi^2=50.87$ p=0.00HS
	1 (+)	4	20	5	25	11	55	4	20	3	15	
	2 (++)	6	30	6	30	2	10	0	0	1	5	
	3 (+++)	4	20	3	15	0	0	0	0	0	0	
	Mean±SD	1.40±1.14		1.30±1.08		0.75±0.63		0.20±0.41		0.25±0.55		
Group-B	0	4	20	4	20	4	20	8	40	8	40	$\chi^2=48.269$ p=0.00HS
	1 (+)	3	15	3	15	7	35	8	40	8	40	
	2 (++)	8	40	8	40	6	30	4	20	4	20	
	3 (+++)	5	25	5	25	3	15	0	0	0	0	
	Mean±SD	1.70±1.08		1.70±1.08		1.40±0.99		0.80±0.76		0.80±0.76		

Discussion

Palash has *vatashamak* property due to its *snigdha*guna and *ushnavirya*. *Udumber* has *tridosha shamak* property due to its *kashya rasa*, *katuvipaka* and *sheetavirya*. Both *Palash* and *udumber* have astringent property due to their *kashya rasa* which causes contraction in skin cell and other body tissue. *Palash* contains the tannic acid, gallic acid and butin &

Udumber has tannic acid, gallic acid, racemosic acid and other alkaloids by which these have astringent and oestrogenic properties results *yonigadhikaran* (Tightening of vaginal wall & perineum). Both these plant have antifungal, antibacterial and anti-inflammatory properties which reduce the vaginal infection & inflammation on local application. *Kapikachhu* has *Vatashamak* property due to its *Madhura* –

Tiktarasa and *Ushnavirya*. It has also contain bioactive alkaloid L-Dopa and other alkaloids. L-Dopa is a neurotransmitter precursor of dopamine in the stratum which controls muscle tone by acting on D₁ like (D₁, D₅) and D₂ like (D₂, D₃, D₄) receptors and achieve the net effect on increasing muscle tone. As the whole sum effect of all the alkaloids that is present in plant-*mucunaprurita*, this plant acts as a nervine tonic, increases muscular tonicity, increases motar activity and act as a CNS stimulant.

In both the groups A & B improvement in perineal laxity and in associated symptoms was observed. Improvement in perineal laxity, cystocele and rectocele was obserbed due to *vata shamak* and *yonigadhikaran* properties of *Palashaditaila* and *yonisankochak* properties of *Kapikachhutaila*. *Taila* was used as *yonipichu*, the use of *pichu* i.e. tampon, maintained the uterus inside vaginal canal in its normal position. By use of these drugs muscle tone improve so improvement in uterine prolapse was seen.

Improvement in cervical congestion, bleeding during coitus and vaginal discharge were observed due to *shothhara*, *vrinaropan*, *Soshan* and *stambhan* properties and due to wound healing, anti-inflammatory, antibacterial and antifungal properties.

Summery and conclusion

According to *Ayurvedic Samhitas Yonishaithilya* is due to vitiated *vata* and vitiation of other *doshas* like *pitta* and *kapha* with the cardinal symptoms of perineal laxity. This condition can be treated with such kind of drugs which have *tridosha shamak*, *yonigadhikaran* and *yonisankochak* properties.

Improvement in *Yonishaithilya* was seen in both the groups but group A showed more better results than group B.

Both *Palashaditaila* and *Kapikachhutaila* gave the better results due to their properties but *Palashaditaila* more better than *Kapikachhu*.

References

1. Charaka Samhita of Agnivesha; [Text with English translation based on Cakrapani Datta'sayurveddipika]- R.K. Sharma, B. Dash; publisher Chaukhambha Krishnadas academy, Varanasi 221001 Edition reprint, chikitsa Sthana 30/10-11, 2008.
2. Astang Hridaya of Vagbhata: Edited with Vidyotinihindi commentary by Kaviraj Atridev Gupta Vidyankar, Published by Chaukhamba Sanskrit Pratisthana Varanasi uttarsthana 38/33.
3. Susruta Samhita: With Nibandha Sangraha Comm of Dalhanacharya and Nyayachadrika Panjika Comm of Gayadasachara on Nidana Sthana; Chaukhambha Orientalia (IVthedi. Reprint). Uttar sthan. 30/13, 1980.
4. Susruta Samhita: With Nibandha Sangraha Comm of Dalhanacharya and Nyayachadrika Panjika Comm of Gayadasachara on Nidana Sthana; Chaukhambha Orientalia 1980 (IVthedi. Reprint). Uttar sthan. 38/18
5. Charaka Samhita of Agnivesha; [Text with English translation based on Cakrapani Datta'sayurveddipika]- R.K. Sharma, B. Dash; publisher Chaukhambha Krishnadas academy, Varanasi 221001 Edition reprint, chikitsa Sthana 30/36,37, 2008.
6. Susruta Samhita. With Nibandha Sangraha Comm of Dalhanacharya and Nyayachadrika Panjika Comm of Gayadasachara on Nidana Sthana; Chaukhambha Orientalia (IVthedi. Reprint). Uttar sthan. 38/20, 1980.
7. Astanga Sangraha (Part-II) Comm. By Atridav Vidva

Alankar. Bansaphatak, Varanasi. Published by Chaukhamba Sanskrit Pratisthana Varanasi uttarsthana 38/43, 1962.

8. Astang Hridaya of Vagbhata: Edited with Vidyotinihindi commentary by Kaviraj Atridev Gupta Vidyankar, Published by Chaukhamba Sanskrit Pratisthana Varanasi uttarsthana 33/40.
9. Female pelvic relaxation, Primer for women with pelvic organ prolapse by Andrew L. Siegel M.D, Board Certified Urologist and Urological Surgeon Director, Centre for Continence Care, 2010.
10. Sharangdhar Samhitaby Dr. Bramhanand Tripathi Uttarakhand 11/110, 1994.
11. Bhav Prakash of Sri Bhav Mishra edited with the 'Vidvotini' hindi commentary, notes and appendix by Sri Brahmashankar Shastri and Shri Rupalaiji Vaishya. Chowkhamba Sanskrit Series chiktsha sthan. 70/47, 48
12. Laycock Jerwood D. pelvic floor muscle assessment: The Perfect scheme, 2001, 631-642.